

UNITED STATES  
ENVIRONMENTAL PROTECTION AGENCY

REGION X

IN THE MATTER OF:	)	ADMINISTRATIVE ORDER ON
	)	CONSENT FOR REMOVAL ACTION
Lower Duwamish Waterway Superfund Site	)	
Slip 4 Early Action Area	)	U.S. EPA Region X
Seattle, Washington,	)	CERCLA Docket No.
	)	)
City of Seattle and King County,	)	Proceeding Under Sections 104, 106(a), 107
	)	and 122 of the Comprehensive
	)	Environmental Response, Compensation,
	)	and Liability Act, as amended, 42 U.S.C.
Respondents.	)	§§ 9604, 9606(a), 9607 and 9622.
_____	)	

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## **I. JURISDICTION AND GENERAL PROVISIONS**

1. This Administrative Order on Consent (Order) is entered into voluntarily by the United States Environmental Protection Agency, Region X (EPA), and by the City of Seattle (City) and King County, Washington (County), the City and County as Respondents. This Order provides for the performance of a non-time-critical removal action by Respondents and the reimbursement of certain response costs incurred by the United States at or in connection with such action for the Slip 4 Early Action Area at approximately River Mile 2.8 on the Duwamish Waterway, and within the Lower Duwamish Waterway Superfund Site (Site or LDW Site) in Seattle, Washington.

2. This Order is issued under the authority vested in the President of the United States by Sections 104, 106(a), 107 and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. §§ 9604, 9606(a), 9607 and 9622, as amended (CERCLA).

3. EPA has notified the State of Washington Department of Ecology (State or Ecology) of this action pursuant to Section 106(a) of CERCLA, 42 U.S.C. § 9606(a). Ecology is co-managing and overseeing cleanup of the Site jointly with EPA.

4. EPA and Respondents recognize that this Order has been negotiated in good faith and that the actions undertaken by Respondents in accordance with this Order do not constitute an admission of any liability. Respondents do not admit, and retain the right to controvert in any subsequent proceedings other than proceedings to implement or enforce this Order, the validity of the findings of facts, conclusions of law, and determinations in Sections IV and V of this Order. Respondents agree to comply with and be bound by the terms of this Order and further

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agree that they will not contest the basis or validity of this Order or its terms. Respondents agree to undertake all actions required by this Order, including any modifications thereto, and consent to and will not contest EPA's authority to issue or to enforce this Order.

## **II. PARTIES BOUND**

5. This Order applies to and is binding upon EPA and upon Respondents and their successors and assigns. Any change in governmental status of a Respondent including, but not limited to, any transfer of assets or real or personal property shall not alter such Respondents' responsibilities under this Order.

6. Respondents are jointly and severally liable for carrying out all activities required by this Order. In the event of the insolvency or other failure of one Respondent to implement the requirements of this Order, the remaining Respondent shall complete all such requirements. Respondents shall ensure that their contractors, subcontractors, and representatives receive a copy of this Order within 7 days from the Effective Date or within 7 days of their contract to work on the project, and that they comply with this Order. Respondents shall be responsible for any noncompliance with this Order.

## **III. DEFINITIONS**

7. Unless otherwise expressly provided herein, terms used in this Order which are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Order or in the appendices attached hereto and incorporated hereunder, the following definitions shall apply:

- a. "CERCLA" shall mean the Comprehensive Environmental Response,

Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601, *et seq.*

b. "Day" shall mean a calendar day. In computing any period of time under this Order, where the last day would fall on a Saturday, Sunday, or Federal holiday, the period shall run until the close of business of the next working day.

c. "Effective Date" shall be the effective date of this Order as provided in Section XXX.

d. "Engineering Evaluation/Cost Analysis" (EE/CA) shall have the definition and attributes described in the NCP, as may be modified by this Order.

e. "EPA" shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.

f. "Ecology" or "State" shall mean the State of Washington Department of Ecology and any successor departments or agencies thereof.

g. "Future Response Costs" shall mean all costs, including, but not limited to, direct and indirect costs, that the United States has incurred in planning, developing and negotiating this Order, in reviewing or developing plans, reports and other items pursuant to this Order, verifying the Work, or otherwise implementing, overseeing, or enforcing this Order, including but not limited to, payroll costs, contractor costs, travel costs, laboratory costs, costs incurred by EPA associated with EPA's preparation of any EPA decision documents (including any Action Memoranda), the costs incurred pursuant to Paragraph 23 (costs and attorneys fees and any monies paid to secure access, including the amount of just compensation), Paragraph 33 (emergency response), and Paragraph 59 (work takeover), as well as any PRP search or other activities related to the Slip 4 Early Action Area undertaken by EPA and/or Ecology at

Respondents' request.

h. "Interest" shall mean interest at the rate specified for interest on investments of the EPA Hazardous Substance Superfund established by 26 U.S.C. § 9507, compounded annually on October 1 of each year, in accordance with 42 U.S.C. § 9607(a). The applicable rate of interest shall be the rate in effect at the time the interest accrues. The rate of interest is subject to change on October 1 of each year.

i. "Municipal sewage sludge" shall mean any solid, semi-solid, or liquid residue removed during the treatment of municipal waste water or domestic sewage, and may include residue removed, all or in part, during the treatment of wastewater from manufacturing or processing operations, provided that such residue has essentially the same characteristics as residue removed during the treatment of domestic sewage.

j. "Municipal solid waste" shall mean household waste and solid waste collected from non-residential sources that is essentially the same as household waste. While the composition of such wastes may vary considerably, municipal solid waste generally is composed of large volumes of non-hazardous substances (*e.g.*, yard waste, food waste, glass, and aluminum) and can contain small amounts of other wastes as typically may be accepted in RCRA Subtitle D landfills.

k. "National Contingency Plan" or "NCP" shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, and any amendments thereto.

l. "Order" shall mean this Administrative Order on Consent and all appendices attached hereto (listed in Section XXIX). In the event of conflict between this Order and any

appendix, this Order shall control.

m. "Paragraph" shall mean a portion of this Order identified by an Arabic numeral.

n. "Parties" shall mean EPA and Respondents.

o. "RCRA" shall mean the Solid Waste Disposal Act, as amended, 42 U.S.C. §§ 6901, *et seq.* (also known as the Resource Conservation and Recovery Act).

p. "Section" shall mean a portion of this Order identified by a Roman numeral.

q. "Statement of Work" or "SOW" shall mean the statement of work for implementation of the removal action, as set forth in Appendix A to this Order, and any modifications made thereto in accordance with this Order.

r. "Waste Material" shall mean 1) any "hazardous substance" under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14); 2) any pollutant or contaminant under Section 101(33) of CERCLA, 42 U.S.C. § 9601(33); 3) any "solid waste" under Section 1004(27) of RCRA, 42 U.S.C. § 6903(27); and 4) any "dangerous waste" under RCW 70.95E.010(1).

s. "Work" shall mean all activities Respondents are required to perform under this Order.

#### **IV. FINDINGS OF FACT**

8. EPA finds the following facts which Respondents neither admit nor deny:

a. The Lower Duwamish Waterway Superfund Site (Site) consists of the areal extent of contamination in the Lower Duwamish Waterway. The Waterway has served as Seattle's major industrial corridor since it was first created by a widening and straightening of the Lower Duwamish River (and formation of Harbor Island) by the United States Army Corps

of Engineers, completed in 1911. Industrial uses of and along the Waterway have been extensive since its construction. The Waterway is also habitat to numerous fish and other aquatic species, and is a migratory corridor for endangered, threatened, and other anadromous fish. The Slip 4 Early Action Area (EAA) consists of Slip 4 at approximately River Mile 2.8 on the eastern side of the Lower Duwamish Waterway and west of East Marginal Way, immediately north of the Boeing Plant II facility at which The Boeing Company (Boeing) has been implementing RCRA Corrective Action, including sediment work, pursuant to a RCRA 3008(h) Administrative Order on Consent (AOC) issued in January 1994, and the areal extent of contamination at or from Slip 4 which EPA will determine in the Action Memorandum should be addressed as part of the Slip 4 EAA. The term "Early Action Area" or "EAA" is used to avoid the confusion inherent in having a site (or many sites as there may be many Lower Duwamish removals) within a Site, and depending on an upper or lower case "S" to distinguish between them. However, the generic term "site" is used in numerous EPA guidance, policy and other documents, as well as statutes and regulations. For purposes of these documents the terms "site" and "Early Action Area" are wholly interchangeable, and where "site" may inadvertently be used in deliverables or exchanges of information pursuant to this Order, any ambiguities which cannot be clearly resolved based on context may require further inquiry.

b. The Slip 4 EAA is comprised of intertidal and subtidal estuarine sediments in an approximately 6-acre area. Most of Slip 4 is owned by Pacific Terminals Inc., and a portion of Slip 4 is owned by Boeing. Adjacent upland properties are owned by Crowley Marine Services Inc., its subsidiary Pacific Terminals Inc., First South Properties LLC, and Boeing. Sediments in Slip 4 were sampled during two investigations in 1997 and one investigation in



1998. The sampling results indicate sediment contamination in portions of Slip 4 that exceed Washington State Sediment Management Standards (SMS), and the primary contaminant of concern is polychlorinated biphenyls (PCBs). A summary of existing data reported 16 of 22 sediment samples exceeding the Washington State's SMS Cleanup Screening Level for PCBs. Sources of releases include industrial releases, sewer system outfalls and urban run-off. Other contaminants found in Slip 4 sediments include metals and phthalates.

c. On September 13, 2001, the Site was listed on the National Priorities List pursuant to Section 105 of CERCLA, 42 U.S.C. 9605, at 66 Fed. Reg. 47583.

d. The City of Seattle is the most populous municipality in the State of Washington. King County is the most populous county in the State of Washington.

e. EPA has not completed a Potentially Responsible Party search for the Site. Additional parties may be potentially liable for releases and contamination at the Site, including the Slip 4 EAA.

#### **V. CONCLUSIONS OF LAW AND DETERMINATIONS**

9. Based on the Findings of Fact set forth above EPA has determined that:

a. The Slip 4 EAA is a "facility" as defined by Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

b. The contamination found at the Slip 4 EAA, as identified in the Findings of Fact above, includes "hazardous substances" as defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14), and/or pollutants or contaminants which may present an imminent and substantial danger to the public health or welfare.

c. Each Respondent is a "person" as defined by Section 101(21) of CERCLA, 42

U.S.C. § 9601(21).

d. Each Respondent is a responsible party under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), and is jointly and severally liable for performance of response action and for response costs incurred and to be incurred at the Slip 4 EAA. Respondents are the “owners” and/or “operators” of a portion of the facility, as defined by Section 101(20) of CERCLA, 42 U.S.C. § 9601(20), and within the meaning of Section 107(a)(1) of CERCLA, 42 U.S.C. § 9607(a)(1); and/or arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment of hazardous substances at the facility, within the meaning of Section 107(a)(3) of CERCLA, 42 U.S.C. § 9607(a)(3).

e. The conditions described in the Findings of Fact above constitute an actual or threatened “release” of a hazardous substance from the facility as defined by Section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

f. The removal action required by this Order is necessary to protect the public health, welfare, or the environment and, if carried out in compliance with the terms of this Order, will be considered consistent with the NCP, as provided in Section 300.700(c)(3)(ii) of the NCP.

g. A planning period of at least six months exists before field activities required by this Order. An EE/CA has been performed.

## **VI. ORDER**

Based upon the foregoing Findings of Fact, Conclusions of Law, Determinations, and the Administrative Record for the Site, including the Slip 4 EAA, it is hereby Ordered and Agreed that Respondents shall comply with all provisions of this Order, including, but not limited to, all attachments to this Order and all documents incorporated by reference into this Order.

## **VII. DESIGNATION OF CONTRACTOR, PROJECT COORDINATOR**

10. Respondents shall retain one or more contractors to perform the Work and shall notify EPA of the name(s) and qualifications of such contractor(s) within 10 days of the Effective Date. Respondents shall also notify EPA in writing of the name(s) and qualification(s) of any other contractor(s) or subcontractor(s) retained to perform the Work at least 7 days prior to commencement of such Work. EPA retains the right to disapprove of any or all of the contractors and/or subcontractors retained by Respondents. If EPA disapproves of a selected contractor, Respondents shall retain a different contractor and shall notify EPA of that contractor's name and qualifications within 10 days of EPA's disapproval.

11. Within 7 days after the Effective Date, Respondents shall designate a Project Coordinator who shall be responsible for administration of all actions by Respondents required by this Order and shall submit to EPA the designated Project Coordinator's name, address, telephone number, and qualifications. To the greatest extent possible, the Project Coordinator shall be present or readily available during field Work. EPA retains the right to disapprove of the designated Project Coordinator. If EPA disapproves of the designated Project Coordinator, Respondents shall retain a different Project Coordinator and shall notify EPA of that person's name, address, telephone number, and qualifications within 7 days following EPA's disapproval. Receipt by Respondents' Project Coordinator of any notice or communication from EPA relating to this Order shall constitute receipt by all Respondents. Within 7 days after Respondents' selection of a Project Coordinator, Respondents shall submit a written plan and accompanying schedule to EPA setting forth how, including all bidding processes for necessary personnel and equipment, Respondents will implement the Work required by this Order.

12. EPA has designated Karen Keeley of the Office of Environment Cleanup (ECL), Region X, as its Project Coordinator. Except as otherwise provided in this Order, Respondents shall direct all submissions required by this Order to the EPA Project Coordinator at 1200 Sixth Avenue, M/S ECL-111, Seattle, WA 98101.

13. EPA and Respondents shall have the right, subject to Paragraph 11, to change their respective designated Project Coordinator. Respondents shall notify EPA 7 days before such a change is made. The initial notification may be made orally, but shall be promptly followed by a written notice.

#### **VIII. WORK TO BE PERFORMED**

14. Respondents shall perform, at a minimum, all actions necessary to implement the Statement of Work (SOW), which is attached as Appendix A.

15. The actions to be implemented generally include, but are not limited to, the implementation of the Action Memorandum for Slip 4 EAA Sediments, dated \_\_\_\_\_, 2004, as set forth in the SOW.

16. The EPA Guidance on Conducting Non-Time-Critical Removal Actions under Superfund (OSWER Directive 9360.0-32) and any additional relevant guidance shall be followed in implementing the SOW.

17. The primary objective of this removal action is to significantly reduce the potential risk to human health and the environment resulting from potential exposure to contaminants present in the Slip 4 EAA.

18. For all Work, EPA may approve, disapprove, require revisions to, or modify a deliverable in whole or in part. If EPA requires revisions, Respondents shall submit a revised deliverable within 10 days of receipt of EPA's notification of the required revisions, unless otherwise noted in the SOW. Respondents shall implement the Work as approved in writing by EPA in accordance with the schedule approved by EPA. Once approved, or approved with modifications, the Work and the schedule, and any subsequent modifications, shall be incorporated into and become fully enforceable under this Order.

19. Respondents shall not commence any Work except in conformance with the terms of this Order. Respondents shall not commence implementation of the Work developed hereunder until after receiving written EPA approval pursuant to this Section.

20. Reporting.

a. Respondents shall submit a written progress report to EPA concerning actions undertaken pursuant to this Order every 30th day after the Effective Date until termination of this Order, unless otherwise directed in writing by the EPA Project Coordinator. These reports shall describe all significant developments during the preceding period, including the actions performed and any problems encountered, analytical data received during the reporting period, and the developments anticipated during the next reporting period, including a schedule of actions to be performed, anticipated problems, and planned resolutions of past or anticipated problems.

b. At least 30 days prior to the conveyance of any interest in real property at the Slip 4 EAA owned or controlled by Respondents, Respondents shall give written notice to the transferee that the property is subject to this Order and written notice to EPA and Ecology of the

proposed conveyance, including the name and address of the transferee. Respondents also agree to require that their successor(s), if any, comply with the immediately preceding sentence and Sections IX (Site Access) and X (Access to Information).

21. Off-Site Shipments.

a. Respondents shall, prior to any off-site shipment of Waste Material from the Slip 4 EAA to an out-of-state waste management facility, provide written notification of such shipment of Waste Material to the appropriate state environmental official in the receiving facility's state and to the EPA Project Coordinator. However, this notification requirement shall not apply to any off-site shipments when the total volume of all such shipments will not exceed 10 cubic yards.

i. Respondents shall include in the written notification the following information: 1) the name and location of the facility to which the Waste Material is to be shipped; 2) the type and quantity of the Waste Material to be shipped; 3) the expected schedule for the shipment of the Waste Material; and 4) the method of transportation. Respondents shall notify the state in which the planned receiving facility is located of major changes in the shipment plan, such as a decision to ship the Waste Material to another facility within the same state, or to a facility in another state.

ii. The identity of the receiving facility and state will be determined by Respondents following the award of the contract for the removal action. Respondents shall provide the information required by Paragraph 21(a) and 21(b) as soon as practicable after the award of the contract and before the Waste Material is actually shipped.

b. Before shipping any hazardous substances, pollutants, or contaminants from

the Slip 4 EAA to an off-site location, Respondents shall obtain EPA's certification that the proposed receiving facility is operating in compliance with the requirements of CERCLA Section 121(d)(3), 42 U.S.C. § 9621(d)(3), and 40 C.F.R. § 300.440. Respondents shall only send hazardous substances, pollutants, or contaminants from the Slip 4 EAA to an off-site facility that complies with the requirements of the statutory provision and regulation cited in the preceding sentence.

#### **IX. ACCESS**

22. If any portion of the Slip 4 EAA, or any other property where access is needed to implement this Order, is owned or controlled by any of the Respondents, such Respondents shall, commencing on the Effective Date, provide EPA and its representatives, including contractors, with access at all reasonable times to the Site, or such other property, for the purpose of conducting any activity related to this Order.

23. Where any action under this Order is to be performed in areas owned by or in possession of someone other than Respondents, Respondents shall use their best efforts to obtain all necessary access agreements within 30 days after the Effective Date, or as otherwise specified in writing by the EPA Project Coordinator. Respondents shall immediately notify EPA if after using their best efforts they are unable to obtain such agreements. For purposes of this Paragraph, "best efforts" includes the payment of reasonable sums of money in consideration of access. Respondents shall describe in writing their efforts to obtain access. EPA may then assist Respondents in gaining access, to the extent necessary to effectuate the response actions described herein, using such means as EPA deems appropriate. Respondents shall reimburse EPA for all costs and attorney's fees incurred by the United States in obtaining such access, in

accordance with the procedures in Section XV (Payment of Response Costs).

24. Notwithstanding any provision of this Order, EPA retains all of its access authorities and rights, as well as all of its rights to require land/water use restrictions, including enforcement authorities related thereto, under CERCLA, RCRA, and any other applicable statutes or regulations.

#### **X. ACCESS TO INFORMATION**

25. Respondents shall provide copies to EPA, upon request, of all documents and information within their possession or control or that of their contractors or agents relating to activities at the Slip 4 EAA or to the implementation of this Order, including, but not limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information related to the Work. Respondents shall also make available to EPA, for purposes of investigation, information gathering, or testimony, their employees, agents, or representatives with knowledge of relevant facts concerning the performance of the Work.

26. Respondents may assert business confidentiality claims covering part or all of the documents or information submitted to EPA under this Order, specifically including contractor costs and documentation thereof, but specifically excluding deliverables required by the attached SOW on which EPA may rely in remedy selection either for the Slip 4 EAA or for the Site, to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b). Documents or information determined to be confidential by EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies documents or information when they are submitted to EPA, or if



EPA has notified Respondents that the documents or information are not confidential under the standards of Section 104(e)(7) of CERCLA or 40 C.F.R. Part 2, Subpart B, the public may be given access to such documents or information without further notice to Respondents.

27. Respondents may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Respondents assert such a privilege in lieu of providing documents, they shall provide EPA with the following: 1) the title of the document, record, or information; 2) the date of the document, record, or information; 3) the name and title of the author of the document, record, or information; 4) the name and title of each addressee and recipient; 5) a description of the contents of the document, record, or information; and 6) the privilege asserted by Respondents. However, no documents, reports or other information created or generated pursuant to the requirements of this Order shall be withheld on the grounds that they are privileged.

28. No claim of confidentiality shall be made with respect to any data, including, but not limited to, all sampling, analytical, monitoring, hydro geologic, scientific, chemical, or engineering data, or any other documents or information evidencing conditions at or around the Slip 4 EAA.

## **XI. RECORD RETENTION**

29. Until 10 years after Respondents' receipt of EPA's notification pursuant to Section XXVIII (Notice of Completion of Work), each Respondent shall preserve and retain all non-identical copies of records and documents (including records or documents in electronic form) now in its possession or control or which come into its possession or control that relate in any manner to the performance of the Work or the liability of any person under CERCLA with respect to the Slip 4 EAA, regardless of any corporate retention policy to the contrary. Until 10 years after Respondents' receipt of EPA's notification pursuant to Section XXVIII (Notice of Completion of Work), Respondents shall also instruct their contractors and agents to preserve all documents, records, and information of whatever kind, nature or description relating to performance of the Work.

30. At the conclusion of this document retention period, Respondents shall notify EPA and Ecology at least 90 days prior to the destruction of any such records or documents, and, upon request by EPA or Ecology, Respondents shall deliver any such records or documents to EPA or Ecology. Respondents may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Respondents assert such a privilege, they shall provide EPA or Ecology with the following: 1) the title of the document, record, or information; 2) the date of the document, record, or information; 3) the name and title of the author of the document, record, or information; 4) the name and title of each addressee and recipient; 5) a description of the subject of the document, record, or information; and 6) the privilege asserted by Respondents. However, no documents, reports or other information created or generated pursuant to the requirements of this Order shall be withheld on the grounds that they are privileged.

31. Each Respondent hereby certifies individually that to the best of its knowledge and belief, after thorough inquiry, it has not altered, mutilated, discarded, destroyed or otherwise disposed of any records, documents or other information (other than identical copies) relating to its potential liability regarding the Slip 4 EAA since notification of potential liability by EPA or Ecology or the filing of suit against it regarding the Slip 4 EAA and that it has fully complied with any and all EPA requests for information pursuant to Sections 104(e) and 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) and 9622(e), and Section 3007 of RCRA, 42 U.S.C. § 6927.

## **XII. COMPLIANCE WITH OTHER LAWS**

32. Respondents shall perform all actions required pursuant to this Order in accordance with all applicable local, state, and federal laws and regulations except as provided in Section 121(e) of CERCLA, 42 U.S.C. § 6921(e), and 40 C.F.R. §§ 300.400(e) and 300.415(j). In accordance with 40 C.F.R. § 300.415(j), all actions required pursuant to this Order shall, to the extent practicable, as determined by EPA, considering the exigencies of the situation, attain applicable or relevant and appropriate requirements (“ARARs”) under federal environmental, tribal environmental, or state environmental or facility siting laws.

## **XIII. EMERGENCY RESPONSE AND NOTIFICATION OF RELEASES**

33. In the event of any action or occurrence during performance of the Work which causes or threatens to cause a release of Waste Material from the Slip 4 EAA that constitutes an emergency situation or may present an immediate threat to public health or welfare or the environment, Respondents shall immediately take all appropriate action. Respondents shall take these actions in accordance with all applicable provisions of this Order, in order to prevent, abate or minimize such release or endangerment caused or threatened by the release. Respondents

shall also immediately notify the EPA Project Coordinator or, in the event of his/her unavailability, the Regional Duty Officer, Environmental Cleanup Office, Emergency Response Unit, EPA Region X, 206-553-1263, of the incident or conditions. In the event that Respondents fail to take appropriate response action as required by this Paragraph, and EPA takes such action instead, Respondents shall reimburse EPA all costs of the response action not inconsistent with the NCP pursuant to Section XV (Payment of Response Costs).

34. In addition, in the event of any release of a hazardous substance from the Slip 4 EAA, Respondents shall immediately notify the EPA Project Coordinator and the National Response Center at (800) 424-8802. Respondents shall submit a written report to EPA within 7 days after each release, setting forth the events that occurred and the measures taken or to be taken to mitigate any release or endangerment caused or threatened by the release and to prevent the reoccurrence of such a release. This reporting requirement is in addition to, and not in lieu of, reporting under Section 103(c) of CERCLA, 42 U.S.C. § 9603(c), and Section 304 of the Emergency Planning and Community Right-To-Know Act of 1986, 42 U.S.C. § 11001, *et seq.*

#### **XIV. AUTHORITY OF EPA PROJECT COORDINATOR**

35. The EPA Project Coordinator shall be responsible for overseeing Respondents' implementation of this Order. The Project Coordinator shall have the authority vested in an On-Scene Coordinator (OSC) by the NCP, including the authority to halt, conduct, or direct any Work required by this Order, or to direct any other removal action undertaken at the Slip 4 EAA, as well as the authority of a Remedial Project Manager (RPM) as set forth in the NCP. Absence of the EPA Project Coordinator from the Slip 4 EAA shall not be cause for stoppage of work unless specifically directed by the EPA Project Coordinator.

## **XV. PAYMENT OF RESPONSE COSTS**

### **36. Payments for Future Response Costs.**

a. Respondents shall pay EPA all Future Response Costs not inconsistent with the NCP. On a periodic basis, EPA will send Respondents a bill requiring payment that includes a SCORPIOS or other regionally prepared cost summary, which includes direct and indirect costs incurred by EPA and its contractors. Respondents shall make all payments within 30 days of receipt of each bill requiring payment, except as otherwise provided in Paragraph 39 of this Order.

b. Respondents shall make all payments required by this Paragraph by a certified or cashier's check or checks made payable to "EPA Hazardous Substance Superfund," referencing the name and address of the parties making payment, the Docket Number of this Order, and EPA Site/Spill ID number 10AJ, and shall be clearly designated as Response Costs:

LDW-Slip 4. Respondents shall send the check(s) to:

Mellon Bank  
EPA-Region 10  
Attn: Superfund Accounting  
P.O. Box 360903M  
Pittsburgh, PA 15251

c. At the time of payment, Respondents shall send notice that payment has been made, as indicated in Paragraph 12 above, to the Financial Management Officer, Environmental Protection Agency, Region 10, 1200 Sixth Avenue, M/S OMP-146, Seattle, Washington 98101-1128.

37. The total amount to be paid by Respondents pursuant to this Section shall be deposited in the Lower Duwamish Waterway Superfund Site Special Account within the EPA

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Hazardous Substance Superfund to be retained and used to conduct or finance response actions at or in connection with the Site, or to be transferred by EPA to the EPA Hazardous Substance Superfund.

38. If payments for Future Response Costs are not made within 30 days of Respondents' receipt of a bill, Respondents shall pay Interest on the unpaid balance. The Interest on Future Response Costs shall begin to accrue on the date of Respondents' receipt of the bill and shall continue to accrue until the date of payment. Payments of Interest made under this Paragraph shall be in addition to such other remedies or sanctions available to the United States by virtue of Respondents' failure to make timely payments under this Section, including but not limited to, payment of stipulated penalties pursuant to Section XVIII.

39. Respondents may dispute all or part of a bill for Future Response Costs submitted under this Order, if Respondents allege that EPA has made an accounting error, or if Respondents allege that a cost item is inconsistent with the NCP. If any dispute over costs is resolved before payment is due, the amount due will be adjusted as necessary. If the dispute is not resolved before payment is due, Respondents shall pay the full amount of the uncontested costs to EPA as specified in this Section on or before the due date. Within the same time period, Respondents shall pay the full amount of the contested costs into an interest-bearing escrow account. Respondents shall simultaneously transmit a copy of both checks to the persons listed in this Section above, together with a copy of the correspondence that established and funds the escrow account, including, but not limited to, information containing the identity of the bank and bank account under which the escrow account is established as well as a bank statement showing the initial balance of the escrow account. Respondents shall ensure that the prevailing party or

parties in the dispute shall receive the amount upon which they prevailed from the escrow funds plus interest within 10 days after the dispute is resolved.

#### **XVI. DISPUTE RESOLUTION**

40. Unless otherwise expressly provided for in this Order, the dispute resolution procedures of this Section shall be the exclusive mechanism for resolving disputes arising under this Order. The Parties shall attempt to resolve any disagreements concerning this Order expeditiously and informally.

41. If Respondents object to any EPA action taken pursuant to this Order, including billings for Future Response Costs, they shall notify EPA in writing of their objection(s) within 14 days of such action, unless the objection(s) has/have been resolved informally. EPA and Respondents shall have 14 days from EPA's receipt of Respondents' written objection(s) to resolve the dispute through formal negotiations (the "Negotiation Period"). The Negotiation Period may be extended at the sole discretion of EPA.

42. Any agreement reached by the parties pursuant to this Section shall be in writing and shall, upon signature by both parties, be incorporated into and become an enforceable part of this Order. If the Parties are unable to reach an agreement within the Negotiation Period, the Director of the EPA Region X Office of Environmental Cleanup Office or his/her Associate Director ("ECL Director") will issue a written decision on the dispute to Respondents. EPA's decision shall be incorporated into and become an enforceable part of this Order. Respondents' obligations under this Order shall not be tolled by submission of any objection for dispute resolution under this Section. Following resolution of the dispute, as provided by this Section, Respondents shall fulfill the requirement that was the subject of the dispute in accordance with

the agreement reached or with EPA's decision, whichever occurs. Any written statement of objections submitted by Respondents and any accompanying documentation shall be retained by EPA in an Administrative Record at the written request of Respondents or at EPA's discretion if there is no written retention request by Respondents.

#### **XVII. FORCE MAJEURE**

43. Respondents agree to perform all requirements of this Order within the time limits established under this Order, unless the performance is delayed by a *force majeure*. For purposes of this Order, a *force majeure* is defined as any event arising from causes beyond the control of Respondents, or of any entity controlled by Respondents, including but not limited to their contractors and subcontractors, which delays or prevents performance of any obligation under this Order despite Respondents' best efforts to fulfill the obligation. *Force majeure* does not include financial inability to complete the Work, or increased cost of performance, or a failure to attain performance standards/action levels selected by EPA.

44. If any event occurs or has occurred that may delay the performance of any obligation under this Order, whether or not caused by a *force majeure* event, Respondents shall notify EPA orally within 24 hours of when Respondents first knew that the event might cause a delay. Within 10 days thereafter, Respondents shall provide to EPA in writing an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; Respondents' rationale for attributing such delay to a *force majeure* event if they intend to assert such a claim, including supporting documentation for such a claim; and a statement as to whether, in the opinion of



Respondents, such event may cause or contribute to an endangerment to public health, welfare or the environment. Failure to comply with the above requirements shall preclude Respondents from asserting any claim of *force majeure* for that event for the period of time of such failure to comply and for any additional delay caused by such failure.

45. If EPA agrees that the delay or anticipated delay is attributable to a *force majeure* event, the time for performance of the obligations under this Order that are affected by the *force majeure* event will be extended by EPA for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the *force majeure* event shall not, of itself, extend the time for performance of any other obligation. If EPA does not agree that the delay or anticipated delay has been or will be caused by a *force majeure* event, EPA will notify Respondents in writing of its decision. If EPA agrees that the delay is attributable to a *force majeure* event, EPA will notify Respondents in writing of the length of the extension, if any, for performance of the obligations affected by the *force majeure* event.

#### **XVIII. STIPULATED PENALTIES**

46. Respondents shall be liable to EPA for stipulated penalties in the amounts set forth in this Section for failure to comply with the requirements of this Order specified below, unless excused under Section XVII (*Force Majeure*). "Compliance" by Respondents shall include completion of the activities under this Order or any work plan or other plan approved under this Order identified below in accordance with all applicable requirements of law, this Order, all Appendices, and any plans or other documents approved by EPA pursuant to this Order and within the specified time schedules established by and approved under this Order.

47. Stipulated Penalty Amounts - Work.

a. The following stipulated penalties shall accrue per violation per day for any noncompliance identified in Paragraph 47(b):

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$ 2,500	1st through 14th day
\$ 5,000	15th through 30th day
\$10,000	31st day and beyond

b. The final and all submitted drafts of the following Compliance Milestones:

1. Project Design Documents;
2. Removal Action Work Plan;
3. Removal Action Completion Report;
4. Long-term Monitoring and Reporting Plan.

48. Stipulated Penalty Amounts - Reports. The following stipulated penalties shall accrue per violation per day for failure to submit timely or adequate final and all submitted draft reports or other written documents pursuant to this Order that are not listed in Paragraph 47(b):

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$ 1,000	1st through 14th day
\$ 3,000	15th through 30th day
\$ 7,500	31st day and beyond

49. In the event that EPA assumes performance of a portion or all of the Work pursuant to Paragraph 59 of Section XX, Respondents shall be liable for a stipulated penalty in the amount

of \$1,000,000.

50. All penalties shall begin to accrue on the day after the complete performance is due or the day a violation occurs, and shall continue to accrue through the final day of the correction of the noncompliance or completion of the activity. However, stipulated penalties shall not accrue: 1) with respect to a deficient submission under Section VIII (Work to be Performed), during the period, if any, beginning on the 31st day after EPA's receipt of such submission until the date that EPA notifies Respondents of any deficiency; and 2) with respect to a decision by the ECL Director under Section XVI (Dispute Resolution), during the period, if any, beginning on the 21st day after the Negotiation Period begins until the date that the ECL Director issues a final decision regarding such dispute. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Order.

51. Following EPA's determination that Respondents have failed to comply with a requirement of this Order, EPA may give Respondents written notification of the failure and describe the noncompliance. EPA may send Respondents a written demand for payment of the penalties. However, penalties shall accrue as provided in the preceding Paragraph regardless of whether EPA has notified Respondents of a violation.

52. All penalties accruing under this Section shall be due and payable to EPA within 30 days of Respondents' receipt from EPA of a demand for payment of the penalties, unless Respondents invoke the dispute resolution procedures under Section XVI (Dispute Resolution). All payments to EPA under this Section shall be paid by certified or cashier's check(s) made payable to "EPA Hazardous Substances Superfund," shall be mailed to the Lockbox number and address set forth in Paragraph 36b, above, shall indicate that the payment is for stipulated

penalties, and shall reference the EPA Region and Site/Spill ID Number 10AJ, the EPA Docket Number of this Order, and the name and address of the parties making payment. Copies of check(s) paid pursuant to this Section, and any accompanying transmittal letter(s), shall be sent to EPA as provided in Paragraph 12, and to other receiving officials at EPA identified in Paragraph 36c, above.

53. The payment of penalties shall not alter in any way Respondents' obligation to complete performance of the Work required under this Order.

54. Penalties shall continue to accrue during any dispute resolution period, but need not be paid until 15 days after the dispute is resolved by agreement or by receipt of EPA's decision.

55. If Respondents fail to pay stipulated penalties when due, EPA may institute proceedings to collect the penalties, as well as Interest. Respondents shall pay Interest on the unpaid balance, which shall begin to accrue on the date of demand made pursuant to Paragraph 52. Nothing in this Order shall be construed as prohibiting, altering, or in any way limiting the ability of EPA to seek any other remedies or sanctions available by virtue of Respondents' violation of this Order or of the statutes and regulations upon which it is based, including, but not limited to, penalties pursuant to Sections 106(b) and 122(l) of CERCLA, 42 U.S.C. §§ 9606(b) and 9622(l), and punitive damages pursuant to Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3). Provided, however, that EPA shall not seek civil penalties pursuant to Section 106(b) or 122(l) of CERCLA or punitive damages pursuant to Section 107(c)(3) of CERCLA for any violation for which a stipulated penalty is provided herein, except in the case of a willful violation of this Order or in the event that EPA assumes performance of a portion or all of the Work pursuant to Section XX, Paragraph 59. Notwithstanding any other provision of this Section, EPA

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may, in its unreviewable discretion, waive any portion of stipulated penalties that have accrued pursuant to this Order.

#### **XIX. COVENANT NOT TO SUE BY EPA**

56. In consideration of the actions that will be performed and the payments that will be made by Respondents under the terms of this Order, and except as otherwise specifically provided in this Order, EPA covenants not to sue or to take administrative action against Respondents pursuant to Sections 106 and 107(a) of CERCLA, 42 U.S.C. §§ 9606 and 9607(a), for performance of the Work and for recovery of Future Response Costs. This covenant not to sue shall take effect upon the Effective Date and is conditioned upon the complete and satisfactory performance by Respondents of all obligations under this Order, including, but not limited to, payment of Future Response Costs pursuant to Section XV. This covenant not to sue extends only to Respondents and does not extend to any other person.

#### **XX. RESERVATIONS OF RIGHTS BY EPA**

57. Except as specifically provided in this Order, nothing herein shall limit the power and authority of EPA or the United States to take, direct, or order all actions necessary to protect public health, welfare, or the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances, pollutants or contaminants, or hazardous or solid waste on, at, or from the Site. Further, nothing herein shall prevent EPA from seeking legal or equitable relief to enforce the terms of this Order, from taking other legal or equitable action as it deems appropriate and necessary, or from requiring Respondents in the future to perform additional activities pursuant to CERCLA or any other applicable law.

58. The covenant not to sue set forth in Section XIX above does not pertain to any matters

other than those expressly identified therein. EPA reserves, and this Order is without prejudice to, all rights against Respondents with respect to all other matters, including, but not limited to:

- a. claims based on a failure by Respondents to meet a requirement of this Order;
- b. liability for costs not included within the definition of Future Response Costs;
- c. liability for performance of response action other than the Work;
- d. criminal liability;
- e. liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments;
- f. liability arising from the past, present, or future disposal, release or threat of release of Waste Materials outside of the Slip 4 EAA; and
- g. liability for costs incurred or to be incurred by the Agency for Toxic Substances and Disease Registry related to the Site.

59. Work Takeover. In the event EPA determines that Respondents have ceased implementation of any portion of the Work, are seriously or repeatedly deficient or late in their performance of the Work, or are implementing the Work in a manner which may cause an endangerment to human health or the environment, EPA may assume the performance of all or any portion of the Work as EPA determines necessary. Respondents may invoke the procedures set forth in Section XVI (Dispute Resolution) to dispute EPA's determination that takeover of the Work is warranted under this Paragraph. Costs incurred by the United States in performing the Work pursuant to this Paragraph shall be considered Future Response Costs that Respondents shall pay pursuant to Section XV (Payment of Response Costs). Notwithstanding any other provision of this Order, EPA retains all authority and reserves all rights to take any and all

response actions authorized by law.

## **XXI. COVENANT NOT TO SUE BY RESPONDENTS**

60. Respondents covenant not to sue and agree not to assert any claims or causes of action against the United States, or its contractors or employees, with respect to the Work, Future Response Costs, or this Order, including, but not limited to:

a. any direct or indirect claim for reimbursement from the Hazardous Substance Superfund established by 26 U.S.C. § 9507, based on Sections 106(b)(2), 107, 111, 112, or 113 of CERCLA, 42 U.S.C. §§ 9606(b)(2), 9607, 9611, 9612, or 9613, or any other provision of law;

b. any claim arising out of response actions at or in connection with the Slip 4 EAA, including any claim under the United States Constitution, the Washington State Constitution, the Tucker Act, 28 U.S.C. § 1491, the Equal Access to Justice Act, 28 U.S.C. § 2412, as amended, or at common law; or

c. any claim against the United States pursuant to Sections 107 and 113 of CERCLA, 42 U.S.C. §§ 9607 and 9613, relating to the Slip 4 EAA. Except as provided in Paragraph 62 (Waiver of Claims), these covenants not to sue shall not apply in the event the United States brings a cause of action or issues an order pursuant to the reservations set forth in Paragraphs 58 (b), (c), and (e) - (g), but only to the extent that Respondents' claims arise from the same response action, response costs, or damages that the United States is seeking pursuant to the applicable reservation.

61. Nothing in this Agreement shall be deemed to constitute approval or preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R. § 300.700(d).

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62. Respondents agree not to assert any claims and to waive all claims or causes of action that they may have for all matters relating to the Slip 4 EAA, including for contribution, against any person where the person's liability to Respondents with respect to the Slip 4 EAA is based solely on having arranged for disposal or treatment, or for transport for disposal or treatment, of hazardous substances at the Slip 4 EAA, or having accepted for transport for disposal or treatment of hazardous substances at the Slip 4 EAA, if:

a. any materials contributed by such person to the Site constituting Municipal Solid Waste ("MSW") or Municipal Sewage Sludge ("MSS") did not exceed 0.2% of the total volume of waste at the Slip 4 EAA; and

b. any materials contributed by such person to the Slip 4 EAA containing hazardous substances, but not constituting MSW or MSS, did not exceed the greater of i) 0.002% of the total volume of waste at the Site, or ii) 110 gallons of liquid materials or 200 pounds of solid materials.

63. This waiver shall not apply to any claim or cause of action against any person meeting the above criteria if EPA has determined that the materials contributed to the Slip 4 EAA by such person contributed or could contribute significantly to the costs of response at the Slip 4 EAA. This waiver also shall not apply with respect to any defense, claim, or cause of action that a Respondent may have against any person if such person asserts a claim or cause of action relating to the Slip 4 EAA against such Respondent.

## **XXII. OTHER CLAIMS**



64. By issuance of this Order, the United States and EPA assume no liability for injuries or damages to persons or property resulting from any acts or omissions of Respondents. The United States or EPA shall not be deemed a party to any contract entered into by Respondents or their directors, officers, employees, agents, successors, representatives, assigns, contractors, or consultants in carrying out actions pursuant to this Order.

65. Except as expressly provided in Section XXI regarding De Micromis Waivers and Section XIX (Covenant Not to Sue by EPA), nothing in this Order constitutes a satisfaction of or release from any claim or cause of action against Respondents or any person not a party to this Order, for any liability such person may have under CERCLA, other statutes, or common law, including but not limited to any claims of the United States for costs, damages and interest under Sections 106 and 107 of CERCLA, 42 U.S.C. §§ 9606 and 9607.

66. No action or decision by EPA pursuant to this Order shall give rise to any right to judicial review, except as set forth in Section 113(h) of CERCLA, 42 U.S.C. § 9613(h).

### **XXIII. CONTRIBUTION PROTECTION**

67. The Parties agree that Respondents are entitled, as of the Effective Date, to protection from contribution actions or claims as provided by Sections 113(f)(2) and 122(h)(4) of CERCLA, 42 U.S.C. §§ 9613(f)(2) and 9622(h)(4), for “matters addressed” in this Order. The “matters addressed” in this Order are the Work and Future Response Costs. Except as provided in Section XXI regarding De Micromis Waivers, nothing in this Order precludes the United States or Respondents from asserting any claims, causes of action, or demands against any persons not parties to this Order for indemnification, contribution, or cost recovery.

68. Respondents agree that with respect to any suit or claim for contribution brought by

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them for matters related to this Order, they will notify EPA in writing no later than 60 days prior to the initiation of such suit or claim. Respondents further agree that with respect to any suit or claim for contribution brought against them for matters related to this Order, they will notify EPA in writing within 10 days of service of the complaint on them. In addition, Respondents shall notify EPA within 10 days of service or receipt of any Motion for Summary Judgment and within 10 days of receipt of any order from a court setting a case for trial.

69. In any subsequent administrative or judicial proceeding initiated by the United States for injunctive relief, recovery of response costs, or other appropriate relief relating to the Slip 4 EAA or this Order, Respondents shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim-splitting, or other defenses based upon any contention that the claims raised by the United States in the subsequent proceeding were or should have been addressed in this Order; provided, however, that nothing in this Paragraph affects the enforceability of the covenants not to sue set forth in this Order.

#### **XXIV. INDEMNIFICATION**

70. Respondents shall indemnify, save and hold harmless the United States, its officials, agents, contractors, subcontractors, employees and representatives from any and all claims or causes of action arising from, or on account of, negligent or other wrongful acts or omissions of Respondents, their officers, directors, employees, agents, contractors, or subcontractors, in carrying out actions pursuant to this Order. In addition, Respondents agree to pay the United States all costs incurred by the United States, including but not limited to attorneys fees and other expenses of litigation and settlement, arising from or on account of claims made against the

United States based on negligent or other wrongful acts or omissions of Respondents, their officers, directors, employees, agents, contractors, subcontractors and any persons acting on their behalf or under their control, in carrying out activities pursuant to this Order. The United States shall not be held out as a party to any contract entered into by or on behalf of Respondents in carrying out activities pursuant to this Order. Neither Respondents nor any such contractor shall be considered an agent of the United States.

71. The United States shall give Respondents notice of any claim for which the United States plans to seek indemnification pursuant to this Section and shall consult with Respondents prior to settling such claim.

72. Respondents waive all claims against the United States for damages or reimbursement or for set-off of any payments made or to be made to the United States, arising from or on account of any contract, agreement, or arrangement between any one or more of Respondents and any person for performance of Work on or relating to the Slip 4 EAA, including, but not limited to, claims on account of construction delays. In addition, Respondents shall indemnify and hold harmless the United States with respect to any and all claims for damages or reimbursement arising from or on account of any contract, agreement, or arrangement between any one or more of Respondents and any person for performance of Work on or relating to the Slip 4 EAA, including, but not limited to, claims on account of construction delays.

## **XXV. INSURANCE**

73. At least 7 days prior to commencing any field Work under this Order, Respondents shall secure, and shall maintain for the duration of this Order, comprehensive general liability insurance and automobile insurance with limits of 5 million dollars, combined single limit.

Within the same time period, Respondents shall provide EPA with certificates of such insurance and a copy of each insurance policy. In addition, for the duration of the Order, Respondents shall satisfy, or shall ensure that their contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision of worker's compensation insurance for all persons performing the Work on behalf of Respondents in furtherance of this Order. If Respondents demonstrate by evidence satisfactory to EPA that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering some or all of the same risks but in an equal or lesser amount, then Respondents need provide only that portion of the insurance described above which is not maintained by such contractor or subcontractor.

#### **XXVI. FINANCIAL ASSURANCE**

74. Within 30 days of the Effective Date and on the anniversary of the Effective Date every year thereafter until Notice of Completion of Work in accordance with Section XXVIII below is received from EPA, Respondents shall establish and maintain financial security in the amount of \$10 million in one or more of the following forms:

- a. A surety bond guaranteeing performance of the Work;
- b. One or more irrevocable letters of credit equaling the total estimated cost of the Work;
- c. A trust fund;
- d. A guarantee to perform the Work by one or more parent corporations or subsidiaries, or by one or more unrelated corporations that have a substantial business relationship with at least one of Respondents; or
- e. A demonstration that one or more of the Respondents satisfy the requirements

of 40 C.F.R. Part 264.143(f).

75. If Respondents seek to demonstrate the ability to complete the Work through a guarantee by a third party pursuant to Paragraph 74(a) of this Section, Respondents shall demonstrate that the guarantor satisfies the requirements of 40 C.F.R. Part 264.143(f). If Respondents seek to demonstrate their ability to complete the Work by means of the financial test or the corporate guarantee pursuant to Paragraph 74(d) or (e) of this Section, they shall resubmit sworn statements conveying the information required by 40 C.F.R. 264.143(f) annually, on the anniversary of the Effective Date. In the event that EPA determines at any time that the financial assurances provided pursuant to this Section are inadequate, Respondents shall, within 30 days of receipt of notice of EPA's determination, obtain and present to EPA for approval one of the other forms of financial assurance listed in Paragraph 74 of this Section. Respondents' inability to demonstrate financial ability to complete the Work shall not excuse performance of any activities required under this Order.

76. If, after the Effective Date, Respondents can show that the estimated cost to complete the remaining Work has diminished below the amount set forth in Paragraph 74 of this Section, Respondents may, on any anniversary date of the Effective Date, or at any other time agreed to by the Parties, reduce the amount of the financial security provided under this Section to the estimated cost of the remaining Work to be performed. Respondents shall submit a proposal for such reduction to EPA, in accordance with the requirements of this Section, and may reduce the amount of the security upon approval by EPA. In the event of a dispute, Respondents may reduce the amount of the security in accordance with the written decision resolving the dispute.

77. Respondents may change the form of financial assurance provided under this Section

at any time, upon notice to and approval by EPA, provided that the new form of assurance meets the requirements of this Section. In the event of a dispute, Respondents may change the form of the financial assurance only in accordance with the written decision resolving the dispute.

#### **XXVII. MODIFICATIONS**

78. The EPA Project Coordinator may make modifications to any plan or schedule in writing or by oral direction. Any oral modification will be memorialized in writing by EPA promptly, but shall have as its effective date the date of the EPA Project Coordinator's oral direction. Any other requirements of this Order may be modified in writing by mutual agreement of the parties.

79. If Respondents seek permission to deviate from any approved work plan or schedule or Statement of Work, Respondents' Project Coordinator shall submit a written request to EPA for approval outlining the proposed modification and its basis. Respondents may not proceed with the requested deviation until receiving oral or written approval from the EPA Project Coordinator pursuant to Paragraph 78.

80. No informal advice, guidance, suggestion, or comment by the EPA Project Coordinator or other EPA representatives regarding reports, plans, specifications, schedules, or any other writing submitted by Respondents shall relieve Respondents of their obligation to obtain any formal approval required by this Order, or to comply with all requirements of this Order, unless it is formally modified.

#### **XXVIII. NOTICE OF COMPLETION OF WORK**

81. When EPA determines, after EPA's review of the Final Removal Action Completion Report, that all Work has been fully performed in accordance with this Order, with the exception

of any continuing obligations required by this Order, including post-removal site controls and monitoring, if any, payment of Future Response Costs, or record retention, EPA will provide written notice to Respondents. If EPA determines that any such Work has not been completed in accordance with this Order, EPA will notify Respondents, provide a list of the deficiencies, and require that Respondents correct such deficiencies. Respondents shall implement the modified and approved Work Plan and shall submit a modified Final Removal Action Completion Report in accordance with the EPA notice. Failure by Respondents to implement the approved modified Work Plan shall be a violation of this Order.

#### **XXIX. SEVERABILITY/INTEGRATION/APPENDICES**

82. If a court issues an order that invalidates any provision of this Order or finds that Respondents have sufficient cause not to comply with one or more provisions of this Order, Respondents shall remain bound to comply with all provisions of this Order not invalidated or determined to be subject to a sufficient cause defense by the court's order.

83. This Order and its appendices constitute the final, complete and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Order. The parties acknowledge that there are no representations, agreements or understandings relating to the settlement other than those expressly contained in this Order. The following appendices are attached to and incorporated into this Order:

- a. Appendix A: Statement of Work.
- b. Map generally depicting Slip 4.

#### **XXX. EFFECTIVE DATE**

84. This Order shall be effective on the day it is issued by EPA. The undersigned

representatives of Respondents certify that they are fully authorized to enter into the terms and conditions of this Order and to bind the parties they represent to this document.

#### **XXXI. NOTICES AND SUBMISSIONS**

85. Documents including work plans, reports, approvals, disapprovals, and other correspondence which must be submitted under this Order, shall be sent to the individuals at the addresses specified below, unless those individuals give written notice of a change to the other parties. All notices and submissions shall be considered effective one business day after receipt by Respondent's Project Coordinator, unless otherwise provided. Upon request by EPA, Respondents shall submit such documents in electronic form.

- a. Twelve (12) copies of documents to be submitted to EPA shall be forwarded to:

Karen Keeley  
U.S. Environmental Protection Agency  
1200 Sixth Avenue, ECL-111  
Seattle, Washington 98101

- b. One (1) copy of documents to be submitted to EPA shall be forwarded to:

Rick Huey  
Washington Department of Ecology  
Northwest Regional Office  
3190 160<sup>th</sup> Avenue SE  
Bellevue, Washington 98504

- c. Two (2) copies of documents to be submitted to EPA shall be forwarded to:

Kym Takasaki  
U.S. Army Corps of Engineers, Seattle District  
P.O. Box 3755  
Seattle, WA 98124-2255



It is so ORDERED and Agreed this \_\_\_\_\_ day of \_\_\_\_\_, 2004.

BY: \_\_\_\_\_  
Lori Cohen  
ECL Associate Director  
U.S. EPA, Region X

DATE: \_\_\_\_\_

Agreed this \_\_\_\_ day of \_\_\_\_\_, 2004.

For Respondent City of Seattle:

By \_\_\_\_\_

Date \_\_\_\_\_

Title

Agreed this \_\_\_\_ day of \_\_\_\_\_, 2004.

For Respondent King County:

By \_\_\_\_\_

Date \_\_\_\_\_

Title

**APPENDIX A**  
**STATEMENT OF WORK**  
**SLIP 4 EARLY ACTION AREA**  
**LOWER DUWAMISH WATERWAY SUPERFUND SITE**  
**SEATTLE, WASHINGTON**

**I. PURPOSE**

The purpose of this Statement of Work (SOW) is to fully implement the Administrative Order on Consent (AOC).

The Work to be completed under this SOW shall include preparation and delivery of and implementation of: 1) Prefinal and Final Project Design Documents; 2) a Draft and Final Removal Action Work Plan and implementation of the removal action; 3) a Draft and Final Removal Action Completion Report; 4) a Draft and Final Long-Term Monitoring and Reporting Plan, as appropriate, to ensure that the objectives outlined in this SOW are achieved in Slip 4; and, 5) Community Involvement Activities.

Removal activities shall be completed in accordance with Table 1 of this SOW. The goal is to initiate the construction phase of the removal action in 2006, or as otherwise approved by EPA.

**II. WORK TO BE PERFORMED BY RESPONDENTS**

Respondents shall complete the following tasks:

**Task 1 - Project Design Documents**

Respondents shall prepare project design documents, including construction plans and specifications, to implement the removal action in the project area as described in this SOW and shall demonstrate that the removal action shall meet all objectives of any Action Memorandum. Respondents shall meet regularly with EPA prior to and during development of design documents and provide EPA, for review and approval, the key technical documents that support the removal design (see below). Design documents, including plans and specifications, shall be submitted in accordance with the schedule set forth in Table 1 of this SOW.

**Prefinal and Final Designs**

Respondents shall submit the prefinal design when the design effort is 60 percent complete. Respondents shall submit for EPA approval the final design when the design effort is 100 percent complete. The Final Design shall fully address all EPA comments made on the Prefinal Design. Prefinal and Final Design shall include:

Slip 4 Early Action Area Statement of Work - Page 1

1) **Prefinal (60%) Design Analysis Report** shall provide the design criteria and the basis of design for the removal action. Examples of the types of information to be included are described below:

\$ Technical parameters and supporting calculations upon which the design will be based, including but not limited to design requirements for each active remedy (e.g., dredging, capping);

\$ If the selected alternative includes capping:

- appropriate physical and chemical characteristics of materials to be used for sediment capping and method for identifying and testing clean source material, including acceptance criteria for such sediment;

- determinations regarding potential propellor-driven erosion for capped areas;

- cap placement techniques;

\$ If the selected alternative includes dredging and/or excavation:

- determinations on requirements to the contractor of how dredged or excavated sediments will be handled, stockpiled, de-watered, transported (including haul routes), and disposed of, including identification of any best management practices, monitoring, and/or analyses necessary to protect on-site personnel and area residents from chemical hazards posed by this Removal Action (such activities may be further described in the contractor's Health and Safety Plan);

- design dredge or excavation depths and overcut allowances, dredged or excavated material volumes, and dredging or excavation techniques;

- identification of potential upland landfill location for disposal of dredged or excavated sediments;

\$ If the selected alternative includes treatment or other methods:

- design criteria and the basis of design for the selected method, such as pretreatment requirements, volume and types of media requiring treatment, treatment schemes, input/output of flow streams, influent/effluent qualities of flow streams;

\$ Descriptions of the analyses conducted to select the design approach, including a summary and detailed justification of design assumptions and verification that design will meet performance standards;

- \$ Evaluation of the potential for imbedded debris (e.g., submerged pilings or logs, buried cables or concrete material, rip rap) in the sediments to affect remedy implementation or achievement of performance standards;
- \$ Access and easement requirements, and permit requirements or substantive requirements of permits;
- \$ Plan for minimizing negative effects on the environment and community during the construction phase(s);
- \$ Analysis and recommendations on institutional controls and/or engineering controls that may need to be implemented to ensure the long-term effectiveness of the removal action, including descriptions of how such controls would be implemented, by whom, and under what circumstances such controls could be removed or terminated (see "Institutional Controls" OSWER 9355.0-74FS-P, EPA 540-F-00-005, September 2000).

If the selected alternative includes capping, the cap design shall follow appropriate EPA guidance, including "Guidance for In-situ Subaqueous Capping of Contaminated Sediments" (EPA 905-B96-004). Capping must be performed consistent with federal laws and regulations, including requirements of Sections 404 and 401 of the CWA, and any stricter state laws and regulations.

If the selected alternative includes dredging, the performance standards must be consistent with federal regulations, including requirements of Sections 404 and 401 of the CWA and Section 10 of the Rivers and Harbors Act, and any stricter state laws and regulations.

**2) Prefinal (60%) Construction Documents and Schedule**, including:

- \$ Construction plans/drawings/sketches and required specifications;
- \$ Proposed locations of processes/construction activity;
- \$ Construction schedule.

**3) Prefinal (60%) Design Plans**, including:

- \$ Draft Construction Quality Assurance Plan (see Section III of this SOW) which shall detail the remediation verification method and approach to quality assurance during construction activities in the project area, including compliance with Applicable or Relevant and Appropriate Requirements (ARARs). The Plan will describe the methods used to measure compliance with measurement quality objectives (such as performance and method requirements), including target dredge or excavation depths, if appropriate. The Plan will include, as an attachment, a Draft Removal Action Sampling and Analysis Plan (see Section III of this SOW), which shall include a field sampling plan and a

quality assurance project plan (QAPP). If the selected alternative includes capping, performance monitoring will include characterization of in-place capping materials (e.g., coverage and thickness) through such methods as video surveys, grab samples, digital photographic interpretation, or bathymetric surveys. If the selected alternative includes dredging or excavation, performance monitoring will be performed to confirm that dredged or excavated material is properly staged, dewatered, and transported to a suitable upland disposal site; and that field construction activities are properly sequenced. The Plan also will specify a quality assurance official (QAO), independent of the Respondents' Project Coordinator and independent of the project engineer/site supervisor, to conduct a quality assurance program during the construction phase of the project. The QAO is responsible for implementation and maintenance of the CQAP, and for maintaining awareness of the entire project to detect conditions that may adversely affect quality. The QAO shall, at a minimum, have knowledge, technical qualifications, and experience relating to sediment remediation projects, and shall be in daily contact with the Respondents' Project Coordinator and project engineer/site supervisor.

- § Draft Water Quality Monitoring Plan and its associated Quality Assurance Project Plan and Health and Safety Plan (see Section III of this SOW), which shall detail water quality monitoring to confirm that water quality standards as defined by substantive requirements of CWA Section 401 water quality certification for compliance with the requirements in CWA Section 404(b)(1) guidelines are met (or ensure approval to allow temporary exceedances of water quality standards has been received) during any capping and dredging operations and where return-water from barges or de-watering (as appropriate) may affect the water column. The plan shall describe the specific water quality monitoring requirements, including: schedule; sampling locations; sampling intervals; sampling equipment and parameters; analytical methods; key contacts; reporting requirements (including daily reports); daily contacts for notifications of any and all exceedances; result summaries; and draft and final Water Quality Monitoring reports. A QAPP and a Health and Safety Plan specific to water quality monitoring shall be included in this deliverable.

#### **4) *Final Design Analysis Report and Plans:***

The 100 % Final Design submittal shall include the final Design Analysis Report; final construction documents and schedule, including final plans and specifications; final Design Plans; final cost estimate for the Removal Action and estimated cost for long-term monitoring; and a schedule for the construction and implementation of the Removal Action that identifies major milestones.

#### **Task 2 - Removal Action Work Plan and Implementation of Removal Action**

Respondents shall prepare a Removal Action Work Plan that outlines the implementation of the selected removal action alternative, including how those construction activities are to be

implemented by Respondents and coordinated with EPA. The Work Plan shall include the following elements, at a minimum:

- \$ Description of the removal action and construction activities, including project organization; construction contractor selection; site mobilization and preparatory work; dredging (if selected) including dredged or excavated material handling, bathymetric surveys, dredged or excavated material spill prevention, procedures and plans for the decontamination of equipment and the disposal of contaminated decontamination materials, stormwater pollution prevention plan; capping (if selected); performance verification; water quality monitoring; and quality assurance;
- \$ Schedule of activities for completion of the Removal Action, including those inspections, meetings, and documents referenced in this task;
- \$ Schedule for developing and submitting other required Removal Action plans;
- \$ Formulation of the Removal Action team;
- \$ Construction quality control plan and statement of qualifications (by constructor);
- \$ Procedures for processing design changes and securing EPA review and approval of such changes to ensure changes conform to performance standards and requirements of this SOW, and are consistent with the objectives of this removal action;
- \$ Procedures for coordinating with EPA regarding compliance with EPA's Off-Site Rule.

The Removal Action Work Plan also shall include a schedule for implementation of all Removal Action tasks identified in the Final Design Report, as approved by EPA. In addition, the Work Plan shall include a Health and Safety Plan that is designed to protect on-site personnel and area residents from physical, chemical, and all other hazards posed by this Removal Action. The safety plan shall follow EPA guidance and all OSHA requirements as outlined in 29 C.F.R. 1910 and 1926. Respondents may utilize existing Health and Safety Plan (HASP) project documents or other company/contractor HASPs provided that Respondents demonstrates the HASP has been modified, as necessary, or otherwise sufficiently addresses the activities covered by this SOW. Draft and Final versions of the Removal Action Work Plan shall be submitted to EPA for review and approval in accordance with the schedule set forth in Table 1 of this SOW.

As described in Table 1, Respondents shall provide notification to EPA thirty (30) days prior to initiation of fieldwork to allow EPA to coordinate field oversight activities.

Respondents shall complete the sediment removal actions in accordance with the approved Final Design documents and Removal Action Work Plan. The following activities shall be completed in constructing the Removal Action.



EPA and Respondents shall participate in a preconstruction meeting to:

- § Review methods for documenting and reporting data, and compliance with specifications and plans including methods for processing design changes and securing EPA review and approval of such changes as necessary;
- § Review methods for distributing and storing documents and reports;
- § Review work area security and safety protocols, as appropriate;
- § Demonstrate that construction management is in place, and discuss any appropriate modifications of the Construction Quality Assurance Plan (CQAP) to ensure that project-specific considerations are addressed;
- § Conduct a site tour in the project area to verify that the design criteria, plans, and specifications are understood and to review material and equipment storage locations, as appropriate.

Respondents shall transmit (electronically) key points and action items of the preconstruction meeting to all parties within seven (7) days of the meeting. Respondents shall submit final key points and action items of the preconstruction meeting to all parties within fourteen (14) days of the meeting.

Pursuant to the CQAP, written weekly reports shall be prepared and submitted to EPA for review during the removal action. Weekly reports shall include work performed, problems encountered and solutions proposed, water quality monitoring results, and work to be performed during the following week. Respondents shall inform EPA of the disposal facility proposed to receive any debris or dredged/excavated materials from Slip 4.

Within seven (7) days after Respondents makes a preliminary determination that construction is complete, Respondents shall orally notify EPA for the purposes of scheduling a final inspection and/or meeting. Within fourteen (14) days after the final inspection and/or meeting, Respondents shall send a letter to EPA stating that construction is complete and responding to any outstanding issues that were raised by EPA during the final inspection/meeting.

### **Task 3 - Removal Action Completion Report**

Within 60 days after completion of the construction phase of the non-time-critical removal action, Respondents shall submit for EPA review and approval a Removal Action Completion Report. This report shall contain a description of the Work described in the Removal Action Work Plan and the Work that was actually performed. In the report, a registered professional engineer and Respondents shall state that the removal action has been constructed in accordance with the design and specifications. The report shall provide as-built drawings, signed and stamped by a professional engineer, showing the area and depth of the location remediated. The

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final report shall include a good faith estimate of total costs or a statement of actual costs incurred in complying with the Order, a listing of quantities and types of materials removed off-site or handled on-site, a listing of the ultimate destination(s) of those materials, a presentation of the analytical results of all sampling and analyses performed (including a map showing the locations of any confirmatory samples), and accompanying appendices containing all relevant documentation generated during the removal action (e.g., manifests, invoices, bills, contracts, and permits). All analytical data collected under this AOC shall be provided electronically to EPA in a format compatible with that used for the Remedial Investigation at the LDW Site. The final Water Quality Monitoring report may be submitted as an appendix to the Removal Action Completion Report. This report shall contain a description of any institutional controls that are in place, or engineering controls that are necessary to sustain the integrity of the removal action, along with copies of any agreements or other documents used to establish and implement such controls.

The final report shall also include the following certification signed by a person who supervised or directed the preparation of that report:

“Under penalty of perjury under the laws of the United States, I certify that to the best of my knowledge, after appropriate inquiries of all relevant persons involved in the preparation of the report, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.”

#### **Task 4 - Long-Term Monitoring and Reporting Plan**

If identified as a component of the selected alternative, Respondents shall prepare a Long-Term Monitoring and Reporting Plan for Slip 4. The Long-Term Monitoring and Reporting Plan shall include inspections and analyses to monitor the removal action implemented at Slip 4.

The Long-Term Monitoring and Reporting Plan shall describe monitoring objectives, an overview of the monitoring approach, design of the monitoring program (e.g., sampling strategy, station locations and replication, field sampling methods, laboratory methods), data analysis and interpretation, reporting requirements, and a schedule. The Plan shall include, as appropriate, visual inspection, bathymetric survey, sediment deposition monitoring, chemical monitoring, and sediment samples in capped areas and non-capped areas (including excavated areas) to monitor for recontamination. Data from long-term monitoring shall be assembled into reports and submitted to EPA in accordance with the schedule set forth in the Long-Term Monitoring and Reporting Plan. Based on long-term monitoring results, EPA shall determine if future response actions are needed to achieve the cleanup objectives.

#### **Task 5 - Community Involvement Activities**

As requested by EPA, Respondents shall provide information supporting EPA's community involvement programs related to the Work performed pursuant to this Order, and shall participate

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in public meetings which may be held or sponsored by EPA to explain activities at or concerning Work performed to this Order.

Upon request by EPA, Respondents shall submit copies of plans, technical memoranda, raw data, and other reports to EPA except those documents that are privileged.

### **III. CONTENT OF SUPPORTING PLANS**

#### ***Sampling and Analysis Plan***

Respondents shall develop a project-specific Sampling and Analysis Plan (SAP), comprised of a Field Sampling Plan (FSP) and project-specific Quality Assurance Project Plan (QAPP) for sample analysis and data handling for any samples collected at the early action area. The SAP shall be based upon the AOC, SOW, and EPA guidance. As appropriate, the SAP will ensure that sample collection and analytical activities are conducted in accordance with the Puget Sound Estuary Program protocols.

The FSP will define in detail the sampling and data-gathering methods that will be used on the project. It will include sampling objectives, a detailed description of sampling activities, sample locations, sample analysis, sampling equipment and procedures, sampling schedule, station positioning, and sample handling (e.g., sample containers and labels, sample preservation).

The QAPP will describe the quality assurance and quality control protocols necessary to achieve required data quality objectives. The QAPP will be prepared in accordance with "EPA Requirements for Quality Assurance Project Plans (QA/R-5)" (EPA/240/B-01/003, March 2001) and "Guidance on Quality Assurance Project Plans (QA/G-5)" (EPA/600/R-98/018, February 1998). The QAPP will address sampling procedures, sample custody, analytical procedures, and data reduction, validation, reporting, and personnel qualifications. The laboratory performing the work must have and follow an approved Quality Assurance (QA) program, which complies with "EPA Requirements for Quality Management Plans (QA/R-2)" (EPA/240/B-01-002, March 2001) or equivalent documentation as determined by EPA. If a laboratory not in the EPA Contract Laboratory Program (CLP) is selected, the QAPP shall be consistent with the requirements of the CLP for laboratories proposed outside the CLP. Respondents will provide assurances that EPA has access to laboratory personnel, equipment and records for sample collection, transportation, and analysis.

All sampling and analyses performed pursuant to this Order shall conform to EPA direction, approval, and guidance regarding sampling, quality assurance/quality control (QA/QC), data validation, and chain-of-custody procedures. Respondents shall ensure that the laboratory used to perform the analyses participates in a QA/QC program that complies with the appropriate EPA guidance.

Upon request by EPA, Respondents shall have such a laboratory analyze samples submitted by EPA for quality-assurance monitoring. Respondents agree that EPA personnel may audit any

laboratory that performs analytical work under this AOC. Prior to awarding any work to an analytical laboratory, Respondents will inform the laboratory that an audit may be performed, and that the laboratory agrees to coordinate with EPA prior to performing analyses. Respondents shall provide to EPA the quality assurance/quality control procedures followed by all sampling teams and laboratories performing data collection and/or analysis.

Upon request by EPA, Respondents shall allow EPA or its authorized representatives to take split and/or duplicate samples. Respondents shall notify EPA not less than 14 days in advance of any sample collection activity, unless shorter notice is agreed to by EPA. EPA shall have the right to take any additional samples that EPA deems necessary. Upon request, EPA shall allow Respondents to take split or duplicate samples of any samples it takes as part of its oversight of Respondents' implementation of the Work.

All analytical data collected under this AOC shall be provided electronically to EPA.

#### ***Health and Safety Plan(s)***

The Health and Safety Plan(s) ensure protection of the public health and safety during performance of on-site Work under this Order. This plan shall be prepared in accordance with EPA's Standard Operating Safety Guide (PUB 9285.1-03, PB 92-963414, June 1992). In addition, the plan shall comply with all currently applicable Occupational Safety and Health Administration ("OSHA") regulations found at 29 C.F.R. Part 1910. Respondents shall incorporate all changes to the plan recommended by EPA and shall implement the plan during the duration of the removal action.

#### ***Construction Quality Assurance Plan***

The Construction Quality Assurance Plan (CQAP) describe the project-specific components of the performance methods and quality assurance program to ensure that the completed project meets or exceeds all design criteria, plans, and specifications. The draft Plan shall be submitted with the Preliminary design and the Final Plan shall be submitted with the Final Design. The Final Plan shall be submitted prior to the start of construction in accordance with the approved construction schedule. The Plan shall provide requirements for the following elements:

- § Responsibilities and authorities of all organization and key personnel involved in the Removal Action construction, including EPA and other agencies.
- § Qualifications of the Construction Quality Assurance (CQA) Officer. Establish the minimum training and experience of the CQA Officer and supporting inspection personnel.
- § Inspection and verification activities. Establish the observations and tests that will be required to monitor the construction and/or installation of the components of the Removal

Action. The plan shall include the scope and frequency of each type of inspection to be conducted. Inspections shall be required to verify compliance with environmental requirements and ensure compliance with all health and safety procedures.

- \$ Performance standards and methods. Describe all performance standards and methods necessary to ensure implementation of the removal construction. Performance monitoring requirements shall be stated to demonstrate that best management practices have been implemented for dredging operations, transportation of dredged or excavated material, and proper cap placement techniques.
- \$ Sampling activities. Establish requirements for quality assurance sampling activities, including the sampling protocols, sample size, sample locations, frequency of testing, acceptance and rejection data sheets, and plans for correcting problems as addressed in the project specifications.
- \$ Documentation. Establish the reporting requirements for construction quality assurance activities. This shall include such items as daily and weekly summary reports, inspection data sheets, problem identification and corrective measures reports, design acceptance reports, and final documentation. A description of the provisions for final storage of all records consistent with the requirements of the AOC shall be included.

#### **IV. SUMMARY OF MAJOR DELIVERABLES/SCHEDULE**

The schedule for submission to EPA of deliverables described in the SOW is presented in Table 1.

TABLE 1 - Project Schedule		
Task 1	A.1 Prefinal (60 percent) Design A.2 Final (100 percent) Design	A.1 Within 60 days of EPA signature of the Action Memorandum. A.2 Within 30 days after receipt of EPA comments on Prefinal Design.
Task 7	A.1 Draft Removal Action Work Plan A.2 Final Removal Action Work Plan A.3 Notification of Removal Action Start A.4 Removal Action Start	A.1 Within 60 days after EPA approval of the Final Design. A.2 Within 14 days after receipt of EPA comments on draft Removal Action Work Plan. A.3 Provide notification to EPA 30 days prior to initiation of removal action fieldwork to allow EPA to coordinate field oversight activities. A.4 Within 30 days after approval of Removal Action Work Plan, consistent with environmental windows for in-water work.
Task 8	A.1 Draft Removal Action Completion Report A.2 Final Removal Action Completion Report	A.1 Within 60 days after completion of removal action (construction phase). A.2 Within 30 days after receipt of EPA comments on Draft Removal Action Completion Report.
Task 9	A.1 Long-Term Monitoring and Reporting Plan, as requested by EPA A.2 Monitoring Data Reports	A.1 Within 60 days after EPA approval of the Final Removal Action Completion Report, as requested by EPA. A.2 Schedule to be proposed by Respondents in the Long-Term Monitoring and Reporting Plan.